

Sludge discovery puts JPL, city on trail of Arroyo cleanup

By Annette Kondo
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City officials say the discovery of a sludge-filled drain in the Arroyo Seco could mark a major step forward in cleaning up chemical waste dumped in the canyon decades ago by the Jet Propulsion Laboratory.

Cancer-causing chemicals have been identified at several sites in the Arroyo since 1980, forcing Pasadena and JPL to open a plant last fall to treat contaminated water the city pumps from below the Arroyo.

JPL officials said a construction crew recently discovered the old storm-drain system at the northeastern edge of the lab while repaving a road.

A trap in the drain was found to contain a black, sandy sludge containing carbon tetrachloride and traces of cyanide.

Below the trap is a cesspool JPL officials believe is one of 35 possible contamination sites in the Arroyo where chemical wastes were stored or disposed of in the 1940s and 1950s. The contents of the pit have not yet been analyzed.

For Pasadena Utility Advisory Commission Chairman Tim Brick, the identification of the cesspool site is an important step toward cleaning up the Arroyo Seco.

"I think it's a good sign they are discovering these pits, because it's probably the most serious cause of contamination in the Arroyo," said Brick, an environmental activist. "These pits are where chemicals seeped into the water table."

JPL environmental engineer Jim McKenna said the construction crew discovered the old storm drain system Nov. 30. A sand trap in the drainage system contained the black, sandy sludge, which a hazardous materials company collected and removed.

Chemical analysis of the sludge revealed traces of cyanide at 0.5 parts per million, which McKenna said is far below the Environmental Protection Agen-

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cy safety threshold of 2,000 parts per million. Cyanide had not been found near JPL before, he said.

"We're hoping it's confined to that site," McKenna said. "We're doing ongoing tests to verify that."

Carbon tetrachloride was measured at 13,400 parts per million. The Occupational Safety and Health Administration safe level is 1,000 to 1,500 parts per million. If exposed to that concentration for several hours, an individual may experience a headache and skin and eye irritations.

After Pasadena discovered contamination in underground wells in the Arroyo, JPL officials acknowledged in 1986 that the lab had used cesspools and dumping pits in the Arroyo to dispose of chemicals in the 1940s and 1950s. Last year, JPL paid the city \$1.125 million to help build a water treatment plant in the Arroyo.

If the contamination is detected in the recently discovered cesspool, McKenna said JPL will clean the sites.

"We've submitted ranking information to the EPA in the fall," he said. "We're waiting to see if we get listed on the National Priority List for Superfund."

If it is eligible for the list, McKenna said it will help JPL proceed with analysis of seepage sites.

Dave Plumb, general manager of the Pasadena Water and Power Department, said if toxic chemicals are found in the cesspool, the cleanup will assist the city's efforts to provide clean water.